



## Poly-victimization: A neglected component in child victimization<sup>☆</sup>

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### Abstract

**Objective:** To assess the role of multiple victimization, or what is termed in this article “poly-victimization,” in explaining trauma symptomatology.

**Method:** In a nationally representative sample of 2,030 children ages 2–17, assessment was made of the past year’s victimization experiences and recent trauma symptoms.

**Results:** Children experiencing four or more different kinds of victimization in a single year (poly-victims) comprised 22% of the sample. Poly-victimization was highly predictive of trauma symptoms, and when taken into account, greatly reduced or eliminated the association between individual victimizations (e.g., sexual abuse) and symptomatology. Poly-victims were also more symptomatic than children with only repeated episodes of the same kind of victimization.

**Conclusion:** Researchers and practitioners need to assess for a broader range of victimizations, and avoid studies and assessments organized around a single form of victimization.

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## Introduction

A considerable literature has developed documenting the serious negative effects on children of violence, crime, maltreatment and victimization (Osofsky, 1995, 1999; Trickett & Schellenbach, 1998). For the most part, this literature has examined the effects of specific, individual kinds of victimization, such as sexual abuse (Kendall-Tackett, Williams, & Finkelhor, 1993; Kilpatrick & Saunders, 1999; Paolucci, Genuis, & Violato, 2001), bullying (Nansel, Overpeck, Haynie, Ruan, & Scheidt, 2003), exposure to community violence (Gorman-Smith & Tolan, 1998), and witnessing domestic violence (Fantuzzo & Mohr, 1999; Fantuzzo et al., 1991; Kolbo, Blakely, & Engleman, 1996). Virtually all have been shown to be associated with mental health problems, delinquency and other difficulties, including serious subsequent health conditions (Kendall-Tackett, 2003; Widom, 2000; Wolfe, 1999).

A general problem with this literature, however, is that most such studies on individual types of victimization have failed to obtain complete victimization profiles. This creates the potential for several kinds of problems, particularly if children who experience one kind of victimization are at greater risk of experiencing other forms of victimization. Specifically, past studies: (1) may exaggerate the contribution of a single type of victimization to mental health problems, (2) do not delineate the interrelationships among victimizations and the contribution of these interrelationships to mental health problems, and (3) often fail to identify within victimized samples certain groups of chronically or multiply victimized children who may be at particular risk. The present study is an exploratory effort to consider the implications of exposure to multiple forms of victimization.

The literature does have much evidence that victimizations tend to cluster both among adults (Hope, Bryan, Trickett, & Osborn, 2001; Outlaw, Ruback, & Britt, 2002) and children (Nishina & Juvonen, 2005; Rossman & Rosenberg, 1998; Saunders, 2003). Research is paying increasing attention, for example, to the conjunction between child abuse and witnessing domestic violence (Appel & Holden, 1998; Bowen, 2000; Kitzmann, Gaylord, Holt, & Kenny, 2003; Sternberg et al., 2004; Wolfe, Crooks, Lee, McIntyre-Smith, & Jaffe, 2003) and also between sexual victimizations in childhood and adolescence (Grauerholz, 2000). Connections between intrafamily and extrafamily victimization have also been noted (Baldry, 2003; Perry, Hodges, & Egan, 2001). Nonetheless, with some exceptions (Appel & Holden, 1998), studies of victimization exposure have not typically incorporated these interconnections in the theory or research about victimization impact.

Much of the literature on the impact of victimization grows out of a theoretical framework based on the concept of traumatic stress (Finkelhor, 1988). The earliest studies in this field began with observations of rape victims who suffered many immediate and long-term difficulties (Burgess & Holmstrom, 1975). The prototypical traumatic victimization in this literature was one frightening, unpredictable event, like a stranger rape, occurring to an otherwise safe and untroubled person.

Since then the literature on victimization in childhood has painted a much more complicated picture showing many childhood victimizations not as single traumatizing events but as part of a pattern of on-going or multiple victimizations (Clausen & Crittenden, 1991). Previously victimized children, particularly those experiencing child maltreatment or family violence, also appear to be at greater risk of subsequent victimizations (Duncan, 1999a,b). Moreover, when observed over time in schools, some children appear to be chronically targeted year after year (Perry et al., 2001).

The clustering of victimizations for some children almost certainly has many explanations, too numerous to explore in detail here. Some pertain to environmental circumstances, families and neighborhoods that increase risk for varieties of victimizations (Cicchetti & Lynch, 1993). Others pertain to characteristics of children, themselves including those implicated in theories about social learning and attachment processes (see, Finkelhor, Ormrod, & Turner, *in press*; Perry et al., 2001; Tseloni & Pease, 2003). Together these observations suggest that for some victimized children, victimization is more of a “condition” than an “event” as portrayed in the early traumatic stress literature. Assessing multiple types of victimization may be important for distinguishing this group for whom victimization is a condition.

Other related fields have made important clinical and research advances in recent years by identifying individuals with intersecting adversities. Concepts such as “poly-drug users” (Bower, 1985; Kaufman, 1977) in the substance abuse field and “dual-diagnosis” or “co-occurring disorders” (Sacks, 2003) in the mental health field have been widely adopted. The designation and analysis of a group of “poly-victims” may similarly help the child victimization field come to a better understanding of victimization trauma (Rossman & Rosenberg, 1998; Saunders, 2003).

The notion that multiple stressors combine and accumulate in various ways that lead to more deleterious and less reversible outcomes is a common one in the developmental literature (Felitti, Anda, & Nordenberg, 1998; Rutter, 1983; Turner & Lloyd, 1995). Many possible mechanisms may be part of the explanation. For example, multiple victimizations may mean that more people and more environments in a child’s life are associated with traumatic reminders that interfere with normal coping. After a certain threshold of victimizations, a child’s defensive coping may become generalized to virtually every one of his or her interpersonal contexts. In addition, since self-blame seems to be an important component to victimization trauma (Mannarino & Cohen, 1996), children may have a much harder time resisting this negative self attribution when they experience victimization from multiple sources. Another possibility is that, because victimization is fairly common in childhood, children do not see themselves as deviant or disadvantaged on this dimension until they are experiencing multiple sorts of victimization. A recent study suggested that seeing other children being victimized actually serves as a buffer against humiliation and anger, perhaps because it helped children discount their personal culpability and deviance (Nishina & Juvonen, 2005). These generalization mechanisms suggest that children victimized in different ways and in different contexts might be more affected than children repeatedly victimized by just one person or in just one context. Such multiply victimized children may also be the ones most likely to experience less reversible impacts at the psychobiological level (Cohen, Perel, DeBellis, Friedman, & Putnam, 2002).

Other less direct mechanisms may account for findings about multiple traumas and negative outcomes. For example, multiple victimizations may be a sign that children are poorly supervised or socially isolated and thus unprotected targets, have poor social interactional skills or a variety of pre-existing psychological problems. In such cases, multiple victimizations may be more markers than agents of the children’s difficulties.

While the present study is not intended to delve extensively into the mechanisms of effect, it is an exploratory effort to test whether the concept of “poly-victimization” has relevance to the assessment of victimization trauma. Our key hypothesis is that poly-victimization accounts for a considerable portion of explainable variation in traumatic symptoms. We also test the idea that relationships between individual victimization types and traumatic symptoms may be misrepresented when a child’s broader victimization profile is not taken into account.

## Methods

### *Developmental Victimization Survey*

This analysis uses data from the Developmental Victimization Survey (DVS). The survey, conducted between December 2002, and February 2003, assessed the experiences of a nationally representative sample of children age 2–17 living in the contiguous United States. Interviews with parents and youth were conducted by telephone by the employees of an experienced survey research firm. Telephone interviewing is a cost-effective methodology (Weeks, Kulka, Lessler, & Whitmore, 1983) that has been demonstrated to be comparable in reliability and validity with in-person interviews, even for sensitive topics (Bajos, Spira, Ducot, & Messiah, 1992; Bermack, 1989; Czaja, 1987; Marin & Marin, 1989). The methodology is also used to interview youth in the US Department of Justice's National Crime Victimization Survey and in a variety of other epidemiological studies of youth concerning exposure to violence (Hausman, Spivak, Prothrow-Stith, & Roeber, 1992).

The sample selection procedures were based on a list-assisted random digit dial (RDD) telephone survey design. This design increases the rate of contacting eligible respondents by decreasing the rate of dialing business and non-working numbers. Experimental studies have found this design to decrease standard errors relative to the typical Mitofsky-Waksberg method (Waksberg, 1978) while producing samples with similar demographic profiles (Brick, Waksberg, Kulp, & Starer, 1995; Lund & Wright, 1994).

A short interview was conducted with an adult caregiver (usually a parent) to obtain family demographic information. One child was randomly selected from all eligible children living in a household by selecting the child with the most recent birthday. If the selected child was 10–17-year old, the main telephone interview was conducted with the child. If the selected child was 2–9-year old, the interview was conducted with the caregiver who “is most familiar with the child's daily routine and experiences.” Caregivers were interviewed as proxies for this age group because the ability of children under the age of 10 to be recruited and participate in phone interviews of this nature has not been well-established, yet such children are still at an age when parents tend to be well informed about their experiences both at and away from home. In 68% of these caretaker interviews, the caretaker was the biological mother, in 24% the biological father, and in 8% some other relative or caretaker.

Up to 13 callbacks were made to select and contact a respondent and up to 25 callbacks were made to complete the interview. Consent was obtained prior to the interview. In the case of a child interview, consent was obtained from both the parent and the child (script available on request from authors). Respondents were promised confidentiality, and were paid \$10 for their participation. Children or parents who disclosed a situation judged by interviewers and project management to constitute a serious current danger (less than 1% of sample) were re-contacted by a clinical member of the research team, trained in telephone crisis counseling, whose responsibility was to stay in contact with the respondent until the situation was resolved or brought to the attention of appropriate authorities. All procedures were authorized by the Institutional Review Board of the University of New Hampshire. The final sample consisted of 2,030 respondents: 1,000 children (age 10–17) and 1,030 caregivers of children age 2–9. Interviews were completed with 79.5% of the eligible persons contacted.

Data were collected using a CATI (Computer Assisted Telephone Interview) system. The use of CATI minimizes recording errors and provides substantial quality control benefits. For this survey, only interviewers who had extensive experience interviewing children and in addressing sensitive topics were chosen. Interviewers then went through extensive training on the questionnaire and interview protocol.

### *The sample*

The final sample represented 2,030 children age 2–17 living in the contiguous United States. Half (50%) of the sample is male; 51% are 2–9-year olds, while 49% are age 10–17. Almost 10% of the sample reported a household income of under \$20,000, while about 34% had annual incomes between \$20,000 and \$50,000. The survey sample is 76% White (non-Hispanic), 11% Black (non-Hispanic), 9% Hispanic (any race), and 3.5% from other races including American Indian and Asian. The sample somewhat underrepresents the national proportion of Blacks and Hispanics, and as a result, post-stratification weights were applied using 2002 Census estimates based on projections from 2000 (US Census Bureau, 2000) to adjust for race proportion differences between the DVS sample and national statistics. It should be noted that, since interviews were conducted in English only, this weighting procedure can only increase representation among English speaking Hispanics. Weights were also applied to adjust for within household probability of selection due to variation in the number of eligible children across households and the fact that the experiences of only one child per household were included in the study.

### *Victimization measures*

Victimization data were collected using the Juvenile Victimization Questionnaire (JVQ), which employs 34 screen questions to determine the number and types of previous-year victimizations experienced by sample children. (A listing of screener victimization types can be seen in Table 1. The complete text of the questions is available in Appendix A of Finkelhor, Hamby, Ormrod, & Turner, 2005) The JVQ defines the concept of victimization broadly to include exposure to (1) violent and property crimes (e.g., assault, sexual assault, theft, burglary), (2) child welfare violations (child abuse, family abduction), (3) the violence of warfare and civil disturbances, and (4) bullying victimization. It includes acts that would be considered crimes if committed between adults, although not necessarily considered criminal when occurring among children (e.g., hitting by peers and siblings). Virtually all the victimizations included have been studied individually as traumas or threats to children's welfare.

The JVQ was developed to fill a gap among existing instruments, which tend to focus on only a limited range of victimizations (e.g., only child maltreatment or only community violence exposure), a limited developmental spectrum, or do not have categories that map easily on to those used by practitioners (Hamby & Finkelhor, 2001). The JVQ uses the same screener questions for the self-report interview conducted with children 10–17 years-of-age as for the caregiver interview conducted for children 2–9 years-of-age, with slight wording changes to appropriately identify the subject of the question. Although there is some concern about whether caregivers have adequate knowledge about child victimizations, comparison of caregiver and youth reports in this sample suggest no systematic underreporting by caregivers for younger children (Finkelhor, Hamby et al., 2005). The JVQ performed well in other psychometric assessments including tests of respondent comprehension, construct validity and test–retest reliability (Finkelhor, Hamby et al., 2005).

To reduce the number of victimization types identified by the screeners to a manageable number, six aggregates were created and used in some analyses: any sexual victimization, any physical assault, any property victimization, any maltreatment, any peer/sibling victimization, any witnessing/indirect victimization. More discussion about definitions and rationales for the victimization types and aggregates is available in two earlier publications (Finkelhor, Hamby et al., 2005; Finkelhor, Ormrod, Turner, & Hamby, 2005b).

Table 1

Percentage of poly-victims (4+ victimizations) among children experiencing each type of victimization in the last year

Type of victimization	Percentage poly-victimized			Mean number of different victimization types	Unweighted <i>n</i>
	Any (4+ types)	Low (4–6 types)	High (7+ types)		
Exposure to War or Ethnic Conflict	100		100	7.3	3
Sexual Assault by Peer	97	48	49	6.5	19
Rape: Attempted or Completed	92	36	56	7.2	40
Flashing/Sexual Exposure	90	28	62	7.5	69
Verbal Sexual Harassment	87	38	48	6.5	68
Nonspecific Sexual Assault	86	21	65	6.9	6
Bias Attack	84	30	55	7.3	32
Witness to Parent Assault of Sibling	84	27	57	7.2	19
Kidnapping	83	17	67	7.6	12
Witness to Murder	82	11	70	7.6	6
Exposure to Random Shootings, etc.	79	31	48	6.2	96
Custodial Interference/Family Abduction	78	40	38	5.6	27
Physical Abuse by CG	77	26	51	6.4	62
Dating Violence	76	22	54	7.4	32
Robbery	72	36	36	5.7	109
Gang or Group Assault	71	18	54	6.7	45
Witness to Assault with Weapon	69	39	31	5.4	265
Attempted Assault	69	31	38	5.6	165
Psychological/Emotional Abuse	68	38	30	5.3	206
Nonsexual Genital Assault	68	22	47	6.2	98
Murder of Family Member or Friend	66	36	30	5.3	38
Assault with Weapon	66	25	40	5.5	105
Personal Theft	64	37	27	5.0	293
Witness to Assault without Weapon	61	37	24	4.7	507
Witness to Domestic Violence	60	30	30	5.2	68
Vandalism	58	32	26	4.8	275
Assault without Weapon	57	33	24	4.6	334
Sexual Assault by Known Adult	57	38	19	4.5	6
Burglary of Family Household	56	27	29	4.7	186
Neglect	51	15	36	5.6	31
Emotional Bullying	48	33	15	4.0	493
Bullying	42	29	13	3.6	425
Peer or Sibling Assault	37	25	12	3.3	825
Aggregates					
Any Sexual Victimization	86	42	45	6.4	151
Any Maltreatment	67	37	30	5.2	265
Any Property Victimization	57	37	20	4.5	529
Any Witnessing/Indirect Victimization	53	34	19	4.3	695
Any Physical Assault	39	26	13	3.4	983
Any Peer/Sibling Victimization	35	24	11	3.3	1132

Sample *n* = 2,030.

A measure of the total number of recent victimization types a child experienced was created. This continuous measure of the number of victimizations, referred to as poly-victimization, was based on the number of different JVQ screener items endorsed, except when different types of victimization occurred as part of the same episode (e.g., an incident in which a child was both physically assaulted and robbed). Such individual episodes with multiple types of victimization were only counted as a single victimization for determining poly-victimization status. However, when examining the contribution of individual victimization types to distress, children were still considered to have been both a victim of a physical assault and of a robbery, if both types occurred in the same episode. While a simple additive count of victimization types does not take into account potential differences in seriousness among victimization types, it is a practice widely used in life event measures and social stress research, and seems appropriate in this exploratory stage of work on multivictimization measurement. Analyses examining alternative methods of summarizing the victimization items are available (Finkelhor et al., 2005b).

In addition to the continuous measure of poly-victimization, for some analyses a categorical measure was created to represent children who could be considered “poly-victims.” Children experiencing four or more victimization types within the past year (i.e., those above the mean number of types for all victimized children [3]) were defined as poly-victims. They were further subdivided into low poly-victims (4–6 types) and high poly-victims (7 or more types), using a cut-off that designated as “high” approximately the top third of the poly-victim group.

We were also interested in repeated victimizations of the same type (e.g., several episodes of peer assault). After each screener, respondents were asked how many times this kind of victimization had occurred during the last year. Answers to this question were used to categorize children as “chronic victims,” those who suffered more than one episode of one type. This was done so that the effect of suffering a single episode of a single kind of victimization could be clearly delineated. The median number of repeated victimizations of the same type in the previous year among those suffering more than one of that type was seven.

### *Mental health measures*

Mental health symptoms were measured using three scales each (anxiety, depressive symptoms and anger/aggression) of two closely related instruments: the Trauma Symptom Checklist (TSCC), administered to the 10–17-year-old respondents and the Trauma Symptom Checklist for Young Children (TSCYC), for caregivers of the 2–9-year-old respondents. The TSCC and the TSCYC were designed to evaluate children’s responses to unspecified traumatic events in different symptom domains. In the TSCC, children are presented with a list of thoughts, feelings and behaviors and asked to indicate how often each of these things happened to him or her in the last month (e.g., feeling afraid, crying, feeling mean). In the case of the TSCYC, the caregiver indicates the frequency of symptoms displayed by their young child (e.g., been afraid to be alone, looked sad, hit adults). In both versions, each item was rated on a four-point scale ranging from 0 (not at all) to 3 (very often).

All components of the TSCC have shown very good reliability and validity in both population-based and clinical samples (Briere, 1996). In the present study, TSCC  $\alpha$  coefficients are .75 for the anxiety subscale (7 items), .82 for the depressive symptom subscale (9 items) and .87 for the anger/aggression subscale (9 items). The TSCYC caregiver report has also shown good psychometric properties (Briere et al., 2001). In the present study, TSCYC  $\alpha$  coefficients are .72 for the anxiety subscale (9 items), .72 for the

depressive symptom subscale (9 items), and .83 for the anger/aggression subscale (9 items). Total overall symptoms scores were not used (1) to avoid representing the measure as a total TSCC and TSCYC scores (since it lacked some subscales), (2) because the psychometric properties of this sum were unknown from the previous literature, and (3) because it was thought that associations might be different across different types of symptoms.

#### *Non-victimization adversity*

Cumulative adversity in childhood was assessed by a comprehensive lifetime adversity measure developed and validated on a sample of university students (Turner & Butler, 2003). It included 14 non-violent traumatic events and chronic stressors. If a specific stressor had occurred or was present at least once in the child's lifetime, they were given a code of 1 on that item. Items included: (a) non-victimization traumas such as serious illnesses, accidents, parent imprisonment, and natural disasters (Sample: In your whole life, were you ever in a VERY BAD fire, explosion, flood tornado, hurricane, earthquake or other disaster?); and (b) more chronic adversities, like substance abuse by family members, parental arguing, and having to repeat a year in school (Sample: Did you ever have to do a school year over again?). An item about chronic teasing was excluded because of possible overlap with the victimization measure. A summary count of total lifetime exposure to non-violent traumas and adversities was constructed. Higher scores indicate greater exposure to different forms of adversity.

#### *Child and household characteristics*

Demographic information was obtained in the initial parent interview, including the child's gender, age (in years), race/ethnicity (coded into 4 groups: White non-Hispanic, Black non-Hispanic, other race non-Hispanic, and Hispanic any race), and current family structure (coded into 3 groups: child living with two biological or adoptive parents, child living with one biological parent and a step-parent or unmarried partner, and child living with a single parent). Information was also collected on place size and type (population numbers, rural or urban character), household income and highest level of education of parent(s). Income and education data were used to construct a consolidated measure of socio-economic status (SES). The SES composite is based on the sum of the standardized income and standardized parental education scores, which was then re-standardized. In cases where data for one of the measures is missing, the SES score is based on the standard score of the remaining index.

#### *Statistical analysis*

Using the count of the total number of victimization types in the last year, i.e., the continuous measure of poly-victimization, multiple regression analyses were performed to examine the association between poly-victimization and mental health, while controlling for the effects of individual victimization type, lifetime adversity, and child and household characteristics. Dependent variables were anxiety, depressive symptoms and anger/aggression symptom trauma scores. Independent variables included gender (reference category was "male"), age (in years), race/ethnicity (reference category was "other race, non-Hispanic"), family structure (reference category was "two biological and/or adoptive parents"), SES score, urban location (city 100,000–300,000 population, or city of over 300,000 population, with reference category as "neither"), lifetime adversity score, and poly-victimization. The measure of poly-victimization



was the number of victimization types experienced by a child in the past year, which ranked children from not victimized to high poly-victimized.

Given differences in data sources (caregivers versus youth; the use of the TSCC versus TSCYC) separate regressions were undertaken for each age group and for each trauma symptom outcome measure. Regressions were not separated by gender because separate exploratory analyses did not suggest important divergent conclusions. Initial regressions for all groups were performed without the poly-victimization measure (6 models: 2 age groups, by 3 trauma symptom scores). This revealed the apparent predictive contributions of the individual child and household characteristics and the lifetime adversity score when poly-victimization is ignored.

Regressions were then conducted which added poly-victimization to the models to determine its relative effect (6 models: 2 age groups, by 3 trauma symptom scores). Finally, to explore the relative independent effects of individual types of victimization on mental health measures, further regressions were executed which added in turn each aggregated victimization type measure (any sexual victimization, any physical assault, any property victimization, any maltreatment, any peer/sibling victimization, or any witnessing/indirect victimization, as defined earlier), both with and without poly-victimization (72 models: 2 age groups, by 6 victimization types, by 3 trauma symptom scores, with and without poly-victimization).

For other analyses to explore the characteristics of poly-victims and to contrast them with other differently victimized groups, children were categorized by the number of victimization types experienced in the past year. Categories ranged from not victimized, through less victimized (1–3 types), to poly-victimized (more than 3 types). As noted, poly-victimized children were further distinguished as low (4–6 types) or high (more than 6 types) poly-victims.

The relative effects of individual types of victimization were further examined using analysis of covariance to compare adjusted symptom scores for children who experienced each kind of victimization, while also controlling for different levels of overall victimization (36 models: 2 age groups, by 6 victimization types, by 3 trauma symptom scores). Models included the same variables as the multiple regression models described above, with the exception of poly-victimization. Rather than poly-victimization, they included a child victimization measure that classified each child as (1) not victimized, (2) single victim, (3) chronic victim, (4) low poly-victim, or (5) high poly-victim. Single victims were children with only one occurrence of the victimization of interest (e.g., one assault); chronic victims had suffered more than one occurrence of the victimization of interest, but were not poly-victims (e.g., multiple assaults); low and high poly-victims were children who had been previously classified as poly-victims, but who had also experienced a victimization of the type of interest (e.g., a high poly-victim who had been assaulted).

## **Results**

It was common for children and youth to have experienced multiple types of victimization in the last year. Of the 71% who had experienced any victimization, 69% had experienced at least one additional, different type of victimization also in the last year. The mean number of victimizations among victimized children for the 1-year period was 3.0 with the range extending all the way to 15. The most common victimizations (as well as the most common kinds of additional victimizations) were peer and sibling assaults, witnessing non-weapon assaults, emotional bullying and theft. (More information on the frequency of individual types of victimization, breakdowns by gender and other demographic characteristics, and comparisons to other estimates is available [[Finkelhor et al., 2005b](#)].) Because of the high

frequency of victimization and inclusion of many relatively less serious types of victimization in the inventory, we defined poly-victims as children who experienced four or more types of victimization in a given year (i.e., all those above the mean). Low poly-victims (4–6 victimizations) comprised 15% of the full sample and high poly-victims (7 or more victimizations) comprised 7%. However, because they experienced so many different victimizations, the poly-victims are well represented in all victimization categories (Table 1). Ninety-six percent of the poly-victims had victimizations across three or more of the aggregate victimization domains (sexual, physical assault, property, child maltreatment, peer/sibling or witnessing/indirect) and 37% across five or more.

Children with certain kinds of victimizations were particularly likely to have a high total of victimizations and fall into the poly-victim category. Those experiencing the following victimizations all had more than 75% of their members in the poly-victim category and had experienced an average of more than seven victimizations types in the last year: exposure to war or ethnic conflict, rape, flashing, bias attack, witnessing parental assault of a sibling, kidnapping, witnessing a murder and dating violence. By contrast, victims of emotional bullying, physical bullying and peer/sibling assaults had the fewest forms of victimization and only a minority of these groups were poly-victims. An example of a poly-victim from the sample was a 16-year-old girl, who in addition to suffering a rape, also experienced a theft, a household burglary, bullying, psychological and emotional abuse at the hands of an adult, and was the witness to another assault, all as separate incidents in the course of 1 year.

Poly-victims were more likely to have certain characteristics (Table 2). They were disproportionately boys and older children; the mean age was 11.1 for low poly-victims and 13.0 for high poly-victims, compared to 9.5 for the sample. They were more likely to live in large cities and had considerably higher rates of other adverse life events. The high poly-victims, but not the low poly-victims, were more likely to be black, come from lower socio-economic status, and reside in one-parent households.

Poly-victimization was a powerful predictor of trauma symptoms. For example, using cut-off scores to identify children with symptom levels in the “clinical range” (Briere, 1996), past-year poly-victims comprised 80% of the 10–17-year olds with clinical levels of anxiety and 86% with clinical levels of depressive symptoms. In multiple regressions controlling for demographic factors (Table 3, shaded section), past-year poly-victimization had a standardized coefficient equal to or greater than .30 and was the largest predictor for symptoms in all age groups with the exception of anxiety symptoms in the 2–9-year-old age group. Except in this one analysis, poly-victimization was more important in predicting symptom levels than were other lifetime adversities.

Even more noteworthy, the inclusion of poly-victimization in the analyses either eliminated or greatly reduced the predictive power of individual types of victimization. Thus, as illustrated in Table 3, bottom section, sexual victimization by itself was significantly associated with elevated levels of anxiety symptoms, depressive symptoms and anger, controlling for demographic factors and lifetime adversities (with the exception of anxiety for 2–9-year olds). But after poly-victimization is taken into account, the association between symptoms and sexual victimization drops below significance for all outcome measures. A similar pattern holds true for property victimization and physical assault. The coefficient for maltreatment, while remaining significant for depressive symptoms, also drops considerably across almost all equations when poly-victimization is controlled. There are considerable decreases for most of the peer/sibling victimization and witnessing/indirect victimization models. These substantial reductions in the associations between individual victimizations and symptom levels suggest that much of the presumed influence of particular victimization types may instead be due to the underlying effect of poly-victimization. (In an additional analysis, not reported here, the comparative influence of poly-victimization was tested in a

Table 2  
Poly-victimized children differ in a number of ways from less-victimized and non-victimized children

Characteristic	Victimization category			
	Not victimized ( <i>n</i> = 637)	Less victimized (1–3 types) ( <i>n</i> = 932)	Poly-victimized	
			Low (4–6 types) ( <i>n</i> = 288)	High (7+ types) ( <i>n</i> = 118)
Child Gender**				
Male	45%	51%	56%	46%
Female	55%	49%	44%	54%
Child Race/Ethnicity*				
White, non-Hispanic	61%	64%	65%	51%
Black, non-Hispanic	15%	16%	16%	22%
Other Race, non-Hispanic	6%	4%	2%	5%
Hispanic, Any Race	19%	16%	17%	22%
Socio-Economic Status**				
Below Average	19%	25%	22%	36%
Average	62%	54%	58%	54%
Above Average	19%	21%	20%	10%
Child Parent Pattern**				
Single Parent or Other	18%	22%	21%	36%
One Parent & Non-parent Partner	6%	10%	15%	22%
Two Parents	76%	68%	64%	42%
Place Size/Type**				
Rural Area	20%	23%	19%	22%
Town	27%	22%	19%	21%
Small City	21%	17%	19%	22%
Suburb of Large City	19%	22%	21%	14%
Large City	13%	16%	22%	21%
Child Age (mean)** (years)	8.6	9.4	11.1	13.0
Lifetime Adversity Score (mean)**	1.4	2.4	3.9	5.6

\* Differences significant at  $p < .05$ .

\*\* Differences significant at  $p < .01$ .

slightly different way, removing from the poly-victimization count any victimizations of the individual victimization type to which poly-victimization was being compared. Results showed a pattern similar to that in Table 3 with poly-victimization being in most cases the stronger predictor of symptoms.)

The predominating influence of poly-victimization can also be seen by comparing the adjusted symptom scores of child and youth victims of different kinds of victimization who were and were not also poly-victims. Fig. 1 shows anxiety symptoms scores among 10–17-year olds for non-victims as well as for four groups of victims. Single victims were those with only one victimization of only one type (e.g., physical assault), but who were not poly-victims. Chronic victims were those with multiple episodes of one type of victimization (e.g., more than one physical assault), but who were not poly-victims. Low and high poly-victims were those victims of the same type of victimization (e.g., physical assault) who also had high numbers of additional different kinds of victimizations (e.g., physical assault, plus other

Table 3  
Effect of poly-victimization on trauma symptoms

Measure	Trauma Symptom Subscale:					
	Anxiety		Depression		Anger/Aggression	
	2-9 Yrs beta (n = 1,003)	10-17 Yrs beta (n = 973)	2-9 Yrs beta (n = 1,005)	10-17 Yrs beta (n = 979)	2-9 Yrs beta (n = 1,005)	10-17 Yrs beta (n = 979)
Poly-Victimization (PV)	0.19 **	0.33 **	0.32 **	0.38 **	0.34 **	0.42 **
Lifetime Adversity	0.32 **	0.10 **	0.22 **	0.11 **	0.21 **	0.17 **
Any Sexual Victimization						
model without PV	0.05	0.14 **	0.09 **	0.21 **	0.08 *	0.19 **
model with PV	-0.01	-0.02	-0.01	0.05	-0.02	-0.01
Any Physical Assault						
model without PV	0.13 **	0.19 **	0.21 **	0.19 **	0.23 **	0.21 **
model with PV	0.05	0.02	0.06	-0.03	0.07 *	-0.03
Any Property Victimization						
model without PV	0.07 *	0.17 **	0.14 **	0.19 **	0.17 **	0.19 **
model with PV	-0.04	0.02	-0.03	0.01	-0.01	-0.01
Any Maltreatment						
model without PV	0.04	0.16 **	0.21 **	0.26 **	0.13 **	0.18 **
model with PV	-0.03	0.04	0.12 **	0.13 **	0.01	0.02
Any Peer/Sibling Victimization						
model without PV	0.16 **	0.23 **	0.23 **	0.23 **	0.24 **	0.22 **
model with PV	0.08 *	0.10 *	0.08 *	0.05	0.08 *	0.01
Any Witnessing/Indirect Victimization						
model without PV	0.09 *	0.24 **	0.14 **	0.22 **	0.11 **	0.21 **
model with PV	-0.02	0.09 *	-0.04	0.03	-0.11 **	-0.02

Standardized regression coefficient (beta) is from multiple regression model controlling for age, gender, race/ethnicity, SES, family structure, place size, and number of lifetime adversities. Trauma symptom subscales for 2–9-year olds are from the Trauma Symptom Checklist for Young Children (TYCYC); for 10–17-year olds from the Trauma Symptom Checklist for Children (TSCC). \*Significant in multivariate model at  $p < .05$ . \*\*Significant in multivariate model at  $p < .01$ .

victimizations, etc.). For all the types of victimization in Fig. 1, the victims in the low and high poly-victim groups had anxiety scores greatly elevated over the single and chronic victims. Most notably, even low poly-victims had significantly higher symptom scores than chronic victims. These findings suggest that additional victimizations of a different kind are associated with more anxiety than additional victimizations of the same kind.

The pattern is similar for depressive symptoms in 10–17-year olds (Fig. 2). With the exception of maltreatment, for which chronic victims had particularly high scores, low poly-victims had significantly higher symptom scores than chronic single-type victims. We analyzed 30 models like those shown in Figs. 1 and 2, for both age groups and across all 3 symptom types for 5 types of victimization (details available from authors on request). (The sexual victimization models were omitted because of empty or low cell counts for some levels of victimization.) Children with either simple or chronic victimization

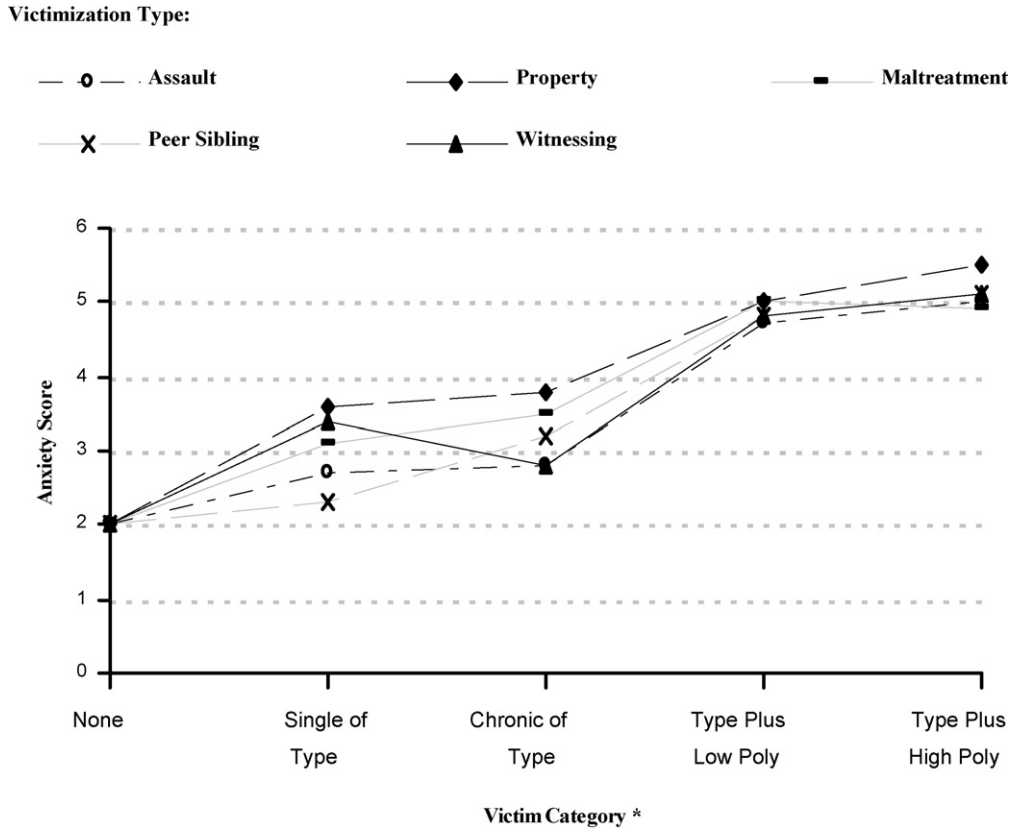


Fig. 1. Adjusted means for anxiety among 10–17-year olds by victimization type and category. \* Categories: None, not victimized; Single of Type, single victimization of specified type (e.g., assault); Chronic of Type, more than one victimization of specified type; Type Plus Low Poly, victimization of specified type as part of 4–6 different victimizations; Type Plus High Poly, victimization of specified type as part of 7 or more different victimizations.

had significantly higher symptom scores than non-victimized children in 27 out of 30 models. When poly-victimization was considered, trauma symptom scores were found to be even higher: low poly-victims had significantly higher symptom scores than chronic victims in 17 of the 30 models, while high poly-victims had significantly higher scores in 24 of the models.

## Discussion

Poly-victims, children with a large number of different kinds of victimization in a single year, make up a substantial proportion of any group of children who would be identified by screening for an individual victimization type (such as victims of bullying or sexual assault). For example, over 92% of the rape victims and 76% of the dating violence victims in this national sample were poly-victims. Moreover, recent poly-victimization was a very important predictor of trauma symptoms. When taken into account, it substantially eclipsed the influence of individual victimizations. This suggests the possibility that it is poly-victimization more than individual victimization histories that is the risk factor for trauma symptoms.

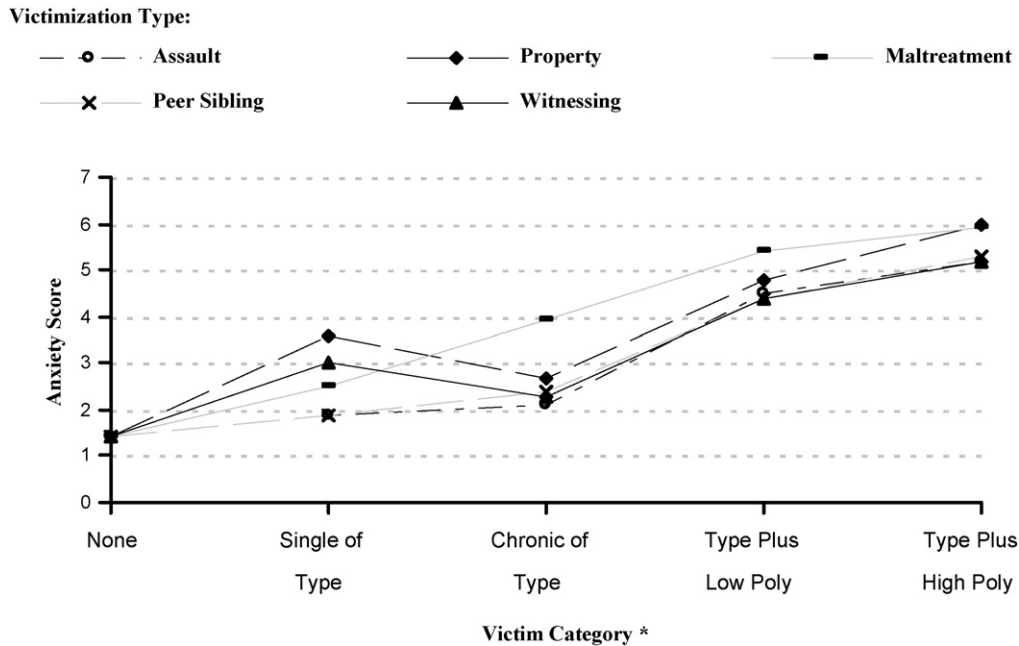


Fig. 2. Adjusted means for depressive symptoms among 10–17-year olds by victimization type and category. \* Categories: None, not victimized; Single of Type, single victimization of specified type (e.g., assault); Chronic of Type, more than one victimization of specified type; Type Plus Low Poly, victimization of specified type as part of 4–6 different victimizations; Type Plus High Poly, victimization of specified type as part of 7 or more different victimizations.

These findings, if confirmed in other studies, raise questions about the previous literature concerning the impact of victimization. It is possible that studies and meta-analyses concerned with single forms of victimization like sexual abuse or exposure to community violence may have overestimated the unique association between these single forms and various negative outcomes, because they did not adequately control for other kinds of victimization.

The findings also suggest that researchers need to search more carefully and systematically for potential cumulative and interactive effects among different kinds of child victimization. Studies that have searched for such effects have come to mixed conclusions. Several studies have found, for example, that witnessing domestic violence and being the direct victim of child abuse results in worse outcomes than one or the other by itself (Bedi & Goddard, *in press*; Kernic et al., 2003; McCloskey & Walker, 2000; Wolfe et al., 2003). Others (for example, Kitzmann et al., 2003) have found no worse effects for the co-occurrence of physical abuse and interparental violence relative to simple interparental violence alone. But the present study, which did find cumulative effects, examined more varied victimization exposures, occurring during a more restricted time frame (a single year) than most previous work. This breadth of focus may have important implications for assessing the real impact of multiple victimization.

These findings also suggest the importance for practitioners of identifying children who have experienced multiple victimizations. Because of their higher levels of traumatic symptomatology, poly-victims may merit priority attention.

When children suffer from multiple victimizations, the question may arise as to whether the trauma is due to the multiplicity of victimization experiences or whether such multiplicity is just a proxy for having

experienced certain high impact types of individual victimization, like sexual assault or child maltreatment. But the pattern of findings in this study does not give much support for this latter interpretation. The number of victimizations, including many of the presumed less salient kinds of victimizations, like theft, vandalism, sibling assault and household burglary, appears considerably more predictive than any one particular kind of victimization.

It should not necessarily be assumed that all victimizations are equivalent in their traumatic potential or all contribute equally in developmental sequences leading to a poly-victimized condition. In creating instruments to identify the most seriously victimized children, consideration needs to be given to weighting victimizations, qualifying according to various criteria and checking for interactions among victimizations and other life events. But analyses with the information available from the JVQ do not so far reveal major improvements in prediction by weighting for various types of victimization or seriousness elements (Finkelhor, Ormrod, Turner, & Hamby, 2005a).

Research now needs to proceed to identify why children become poly-victims. Several different literatures emphasize different processes. Those who study bullying victimization tend to emphasize how family influences, including attachment and childrearing patterns, set up internalized cognitive “victim schemas” in some children (Perry et al., 2001). The traumatic stress literature tends to emphasize the debilitating and disorienting emotional effects of victimization that undermine self-protective capacities (Scott, Wolfe, & Wekerle, 2003). The criminology literature highlights the high-risk activities and social environments that typify some youth (Lauritsen & Quinet, 1995; Outlaw et al., 2002). All such influences have empirical support, but none is likely to be a sufficient explanation alone, given the diversity of contexts in which poly-victimization occurs.

Research also needs to examine resilience and vulnerability factors in conjunction with poly-victimization. Although poly-victimization accounted for more of the variation in distress outcomes than individual victimizations, still much of the distress variability remained unexplained, suggesting that not all poly-victims were highly distressed. Research has pointed to various protective factors operating for children in adverse circumstances, such as intelligence, parental attachment, external interests, coping skills, peer relations and temperament (Fergusson & Horwood, 2003; Gorman-Smith & Tolan, 2003; Hodges, Boivin, Vitaro, & Bukowski, 1999; Ladd & Skinner, 2002; Schwartz & Proctor, 2000). Models need to be tested that look simultaneously at multiple risk factors, such as poly-victimization, and multiple resiliency and vulnerability factors as well (Fergusson & Horwood, 2003).

Research should also try to examine more carefully the developmental aspects of poly-victimization, since patterns and impacts may change over the course of development. Our findings show that poly-victimization is somewhat more common among older children, in part because some kinds of victimization like sexual assault and the witnessing of assault appear to increase with age (Finkelhor et al., 2005b). Future analysis might further examine whether poly-victimization is a condition that is more difficult to escape at older ages or may have different consequences, based on developmental variations in capacities and perceptions. Current findings also suggest that boys are somewhat more likely to be poly-victims. This is in large part due to the greater volume of peer assaults that boys experience (Finkelhor et al., 2005b). The differential effects of poly-victimization on boys and girls is also a topic worthy of further study.

Another important topic for future consideration concerns how the concept of poly-victim and poly-victimization should be operationalized for further research and clinical exploration. The algorithm for counting victimizations and the cut-offs used in this paper should not be taken as definitive. Further

consideration of these issues is available in other papers from the current data (Finkelhor, Ormrod, & Turner, 2007; Finkelhor et al., in press; Finkelhor et al., 2005a), but it will be important to have other samples, including clinical samples, to inform these decisions.

### *Limitations*

Several limitations need to be recognized in interpreting the results. The time frame within which victimization was measured was 1 year. This is a long time period to recall victimizations of some types and their frequencies, like bullying or sibling assault, but is also a short time period to estimate some less frequent victimizations. The National Crime Victimization Survey (NCVS) uses a 6-month time period and has demonstrated that there is both a tendency to forget some victimizations and also to “telescope” other victimizations from earlier periods into a given time period (Planty, 2003, May 15–18). The NCVS uses sequential interviews to “bound” estimates. In the present study, there was almost certainly considerable underreporting of some kinds of victimizations, due to a combination of forgetting and embarrassment, as well as over reporting due to telescoping. One possible threat to the validity of findings from this study would occur if distressed and/or victimized children were more likely to over-report victimizations due to some sensitization mechanisms.

As in most cross-sectional studies, causal ordering cannot be clearly established. It is entirely plausible that children and youth with mental health symptoms may be more vulnerable to victimization. Moreover, youth with more symptoms or their parents may tend to perceive or remember more victimizations, creating artifactual associations.

Another limitation of the study is that some of the most severe kinds of child victimizations, like sexual assaults, are relatively rare in the sample, and typically occur in conjunction with high levels of poly-victimization. As a result, it was hard to assess the individual impact of such victimizations independently of poly-victimization. In addition, the study does not have information on the sequencing of victimizations, or complete inventories of all lifetime occurrences. We also do not know how long the trauma symptoms have persisted, how impairing they have been in the children’s lives, and details on professional help that has been obtained or sought. It could be, for example, that first victimizations or initial victimizations of a particular type are both more traumatizing and increase the potential for poly-victimization. Since our study was not able to distinguish between first and subsequent victimizations of each type, we may not be able to assess fully the relative importance of individual versus poly-victimization.

Another set of limitations concern the sources of information in the study. Victimization, adversity and trauma measures came from the same sources, and were generally unverified by other sources, leading to a possibility of method covariance. Information from the same source tends to yield substantially higher correlations than information from different sources, for example parents and children. It is also generally recognized that reports of victimization as well as symptoms can vary considerably depending on whether the data source is children, their caregivers or a professional or agency (Jouriles, Barling, & O’Leary, 1987; McGee, Wolfe, Yuen, Wilson, & Carnachan, 1995; Sternberg, Lamb, & Dawud-Noursi, 1998).

Concern is also often expressed about the degree to which caregivers know about or are willing to disclose victimizations to their children, especially child maltreatment. But comparison of the caregivers and youth reports in this study did not suggest a differential underreporting by caregivers, even of child maltreatment (Finkelhor et al., 2005). It is also noteworthy that similar findings resulted from both the analyses of the data gathered exclusively from caregivers (in regard to 2–9-year olds) and the data gathered from youth themselves (in regard 10–17-year olds). This allays some of the concern about the problem



of divergence between parent and child perspectives. However, it would be important in future research to gather as much information as possible from multiple sources.

The sample utilized in this study is a nationally representative sample encompassing a broad age spectrum. While valuable for generalization to the whole population, it may contain a limited selection of very highly victimized and at-risk youth compared to clinical samples, and thus its findings may need to be replicated on such samples, from which clinical norms can be established. In addition, the broad age spectrum may obscure effects that would be evident with larger samples of more targeted age groups.

## Conclusion

The conceptualization and findings of this study, if confirmed by other research, suggest that future research and practice in the field of child victimization might benefit from a more comprehensive approach to assessment, one that takes into account a broader range of victimizations. The benefit for research may be a better ability to account for the effects of victimization and a better ability to understand the sequences or pathways that lead to victimization vulnerability. The benefit for practice may be a better ability to identify the most seriously victimized children and a better ability to target intervention and prevention to the full range of harm-causing episodes that children have experienced or are at risk for (Cohen, Deblinger, Mannarino, & Steer, 2004).

One may question why such comprehensive assessment is necessary, given that some background factors are often missing in assessments. But observation of the literature suggests that in the child victimization field, attention to some forms of victimization and inattention to others can be related to publicity and ideology rather than evidence of what is most important. The clinical preoccupation in recent years with identifying histories of sexual abuse, for example, even to the exclusion of other forms of child maltreatment is an example. Sexual abuse, by itself, may not necessarily be the marker for the most seriously victimized children. A more comprehensive assessment may help identify who among the sexually victimized children are most in danger and which non-sexually victimized children are also at risk.

The JVQ does provide an instrument that researchers and practitioners can use to assess for a broad spectrum of victimization and identify poly-victimized children. Additional analyses of the instrument suggest that the screeners alone and even a subset of the full screeners can be used to identify poly-victims (Finkelhor et al., 2005a). However, much work remains to be done to establish the utility of the JVQ for practitioners, including refinements of the cut-off scores and observation of how practitioners interpret responses to various items. Nonetheless, the JVQ holds promise to help in further delineating the poly-victimization concept.

Overall, the pattern of findings revealed in this study argues generally for a more holistic approach to child victimization than has been characteristic of the field to date. Researchers and policy makers concerned about bullying need to be more cognizant about child maltreatment and domestic violence and vice versa. This holistic approach may yield benefits for research and public policy as well as for victimized children.

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## Résumé/Resumen

French- and Spanish-language abstracts not available at time of publication.